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EXAMINER	
KHAN, MEHMOOD B	

ART UNIT	PAPER NUMBER
2617	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/553,535	IBRAHIM, NICOLAS	
	Examiner	Art Unit	
	MEHMOOD KHAN	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02/16/2011*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *19-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *19-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Note: Applicants were given a letter vacating the previous office action as being a premature final. The amendments were only for overcoming the USC 112 rejections. The USC 112 rejections have been over come.

Response to Arguments

Applicant's arguments filed 11/16/2010 have been fully considered but they are not persuasive.

Applicant argues on page 2 that "On the contrary according to an example of the Applicant's specification, the emitter identification is based on a control information transmission signal, and only after this identification, the determination of the pattern used by the emitter is implemented (see page 13, lines 17-20. and page 15, lines 6-9 and 17-22 of the U.S. specification). As a consequence, the emitter identification that is based on a control information transmission signal is a preliminary condition, which is used later for the pattern determination".

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "and only after this identification, the determination...") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In the above argument, the term "emitters" is used. This is understood to be amended to base stations. Furthermore, unless specifically or explicitly stated in the claims, the steps of a claim are not deemed/interpreted to be chronological solely on the fact that a step of a claim is written after another step.

Applicant argues on page 2 that "In addition, LAROIA does not disclose that only one pilot can be received by the mobile terminal from the different base stations, at a given time and at a given frequency".

The Examiner respectfully disagrees. Laroia clearly discloses that pilot signals are received from base stations and are unique due to the slope of the pilot signal **(0019).** Since the pilot signals are distinct, as required by the claim, and as stated in the claim "...using distinct pilot patters, such that at any given moment and any given moment and at any given frequency the receiver can only receive one pilot pattern from the emitters". Furthermore, Laroia clearly discloses that all pilots transmitted by the base stations use the name tones, number of pilot tones per OFDM symbol and frequency offsets **(0019).** Since frequency offset is used, a shifted pilot symbol is transmitted by all of the base stations, thus the same pilot symbol.

Applicant argues on page 2 that "Indeed, the main goal of LAROIA is to permit an identification of the emitting base station, based on the pilot pattern, and not to reduce the interferences between pilots".

The Examiner respectfully disagrees. Laroia uses frequency offsets and unique slopes to avoid collisions between pilots, thus reduce interference **(0019).**

Thus the claimed and argued limitations have been met.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 19-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Laroia et al. (EP 1148673 "Laroia").

Claim 19, Laroia discloses Method for reception of radio data transmitted between at least two *base stations* and one *mobile station* **(Fig. 5: 501-503, 2 Base Stations and one Mobile Station)** wherein the method comprises:

a first step of receiving data transmitted by a multicarrier data transmission signal **(0008, received pilot signal, since this an OFDM system thus multicarrier)**, the multicarrier data transmission signal being formed from a sequence in time of symbols comprising firstly information data elements **(Fig. 3, non-shaded squares, on the time scale)**, and secondly reference elements called pilots **(Fig. 3, shaded squares)**, *said pilots being* distributed within the information data elements according to a predetermined pattern **(shaded squares in between non-shaded squares, thus within information data elements)**, and *having a* value *at* emission known *by* the *mobile station* **(0014, pilot signal contains known waveforms, thus value, so receivers can identify base stations)**, at least two of the *base station* using distinct pilot patterns such that at any given moment and at any given frequency, the *mobile station* can only receive one pilot from the *base stations* **(Figs. 4 and 5, 0017, pilots transmitted with different slopes and on different tones)**;

a second step of identifying the *base station*, which emitted the data, using a control information transmission signal **(0019-0020, using a unique slope to identify base station)**, which allows notably the *mobile station*, upon data reception, to identify the *base station* that emitted *the data* **(0019, slopes are locally different, i.e. unique thus receiver able to identify base stations)**; and

a third step of determining the pilot pattern used by the identified *base station* **(0020, using parameters in a programmed mobile to know the base station)**.

Claim 20, Laroia discloses wherein, when the pilot pattern was generated using a generation function for which one parameter is an identifier **(0019, using a slope to identify the pilots)** of the associated *base station*, the step of determining implements the generation function as a function of the identified *base station* **(0020, cell phone can be programmed with known parameter, slope, to figure out base stations)**.

Claim 21, Laroia discloses a step for extracting the pilots from the multicarrier data transmission signal **(0020, determining pilots)**, and a step for estimating *a* transfer function of a transmission channel associated with the multicarrier data transmission signal **(0028-0030, which shows solution for E(t) in the channel and a slope solver)**.

Claim 22, Laroia wherein the multicarrier data transmission signal is of *an* OFDM type **(0019, OFDM)**.

Claim 23, Laroia discloses wherein each of the *base stations* uses a specific pilot pattern **(0019, unique pilots and slopes)**.

Claim 24, Laroia discloses wherein said method is implemented in a cellular radio communication network, the *base stations* are base stations of the network, and the receiver is a mobile terminal **(see claim 19)**.

Claim 25, as analyzed with respect to the limitations as discussed in claim 19.

Claim 26, as analyzed with respect to the limitations as discussed in claim 19.

Claim 27, as analyzed with respect to the limitations as discussed in claim 19.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MEHMOOD KHAN whose telephone number is (571)272-9277. The examiner can normally be reached on Monday - Friday 8:30 am - 5:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on 571-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. B. K./
Examiner, Art Unit 2617

/LESTER KINCAID/

Supervisory Patent Examiner, Art Unit 2617